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(PTO ASSISTANCE)

Application : <u>09/807867</u>	Examiner : <u>Kallis</u>	GAU : <u>1638</u>
From : <u>LAS</u>	Location : <u>IDC</u> FMF FDC	Date : <u>10-11-05</u>
Tracking # : <u>6055486</u>		Week Date : <u>12-27-04</u>

DOC CODE	DOC DATE	MISCELLANEOUS
<input type="checkbox"/> 1449	_____	<input type="checkbox"/> Continuing Data
<input type="checkbox"/> IDS	_____	<input type="checkbox"/> Foreign Priority
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<input type="checkbox"/> DRW	_____	
<input type="checkbox"/> OATH	_____	
<input type="checkbox"/> 312	_____	
<input checked="" type="checkbox"/> SPEC	<u>4-20-2001</u>	

[RUSH] MESSAGE: _____

Page 17, line 24 of the specification is illegible
(due to scanning).

Thank you

[XRUSH] RESPONSE: _____

See NIS comm

DONE

INITIALS: [Signature]

NOTE: This form will be included as part of the official USPTO record, with the Response document coded as XRUSH.
 REV 10/04

Application No. 09/807,867

PATENT APPLICATION**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re the Application of

Attn: **Publishing Division**

Pierre CAROL et al.

Application No.: 09/807,867

Filed: June 15, 2001

Docket No.: 109326

For: CDNA SEQUENCE TRANSCRIBING AN MRNA ENCODING THE TERMINAL
OXIDASE ASSOCIATED WITH CAROTENOID BIOSYNTHESIS, AND USES
THEREOF

**RESPONSE TO NOTICE TO FILE CORRECTED
APPLICATION PAPERS WITH SUBSTITUTE SPECIFICATION**

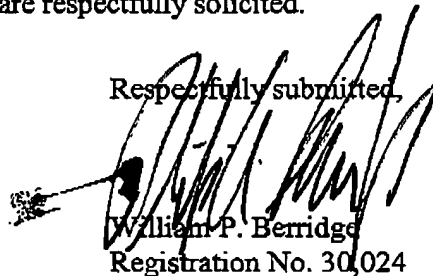
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

In response to the Notice to File Corrected Application Papers - Filing Date
Granted (copy attached) mailed on November 8, 2005, a copy of Page 17 of the Specification
is attached in order to correct the informality cited in the Notice.

Entry of this document should complete all of the filing formalities and fully
satisfy all requirements of the Notice to File Corrected Application Papers. Examination and
allowance of this application in due course are respectfully solicited.

Respectfully submitted,


William P. Berridge
Registration No. 30,024

Philip A. Caramanica, Jr.
Registration No. 51,528

WPB:PAC/jam

November 15, 2005

OLIFF & BERRIDGE, PLC
P.O. Box 19928
Alexandria, Virginia 22320
Telephone: (703) 836-6400

DEPOSIT ACCOUNT USE AUTHORIZATION Please grant any extension necessary for entry; Charge any fee due to our Deposit Account No. 15-0461
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- 17 -

4 - Isolation and characterization of the coding sequence

A cDNA library was used, which is a commercial library sold by Clontech Laboratories, Inc.. This is a cDNA library made from mRNAs extracted from *Arabidopsis thaliana*, transformed into cDNAs and then cloned into the plasmid vector pGAD10.

Using this cDNA data library, and according to the usual techniques, using the gene identified above as a probe, several clones containing a cDNA of about 1 400 base pairs in size were isolated.

The total sequence of the cDNA was determined and showed that this cDNA is entirely within the genomic DNA fragment identified previously. The coding portion (or exons) and the noncoding portion (introns) of the gene were placed on the sequence of the gene. The gene bears 9 exons and 8 introns. The insertion of the transposon Ds was identified at the start of the second exon and thus interrupts the coding portion of the gene.

The cDNA sequence has a potential start codon followed by an open reading frame of 350 amino acids, encoding a potential protein of 39 kDa known as TOCB. A search for homology using the blastp program [(Altshul et al. (1997), Gapped BLAST and PSI-BLAST: a new generation of protein database search programs *Nucleic Acids Res.* 25, 3389-3402] revealed a low but significant homology with polypeptides belonging to the family of mitochondrial alternative oxidase or terminal oxidase (AOX) proteins. No other significant homology was found. The homology starts at amino acid 111 and shows 29% identity (45% similarity) with soybean oxidase. Despite the low identity with the AOX protein, a computer search for secondary structures and potential domains of biological significance revealed a structural similarity between the protein TOCB and AOX. Transmembrane helix domains found in AOX are located in similar positions on the peptide sequence of TOCB,

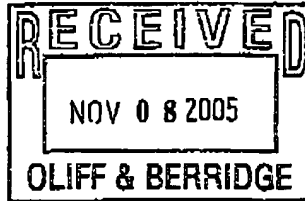


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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/807,867	06/15/2001	Pierre Carol	109326	6258

25944 7590 11/08/2005
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 ALEXANDRIA, VA 22320



EXAMINER	
KALLIS, RUSSELL	
ART UNIT	PAPER NUMBER
1638	

DATE MAILED: 11/08/2005

DUE DATE

DEC - 8 2005

Please find below and/or attached an Office communication concerning this application or proceeding.

DOCKETED
 By Fmp on 11/8 2005
 and
 By JMM on 11/8 2005
 Oliff & Berridge

**UNITED STATES PATENT AND TRADEMARK OFFICE**

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Serial Number
09807867

Date Mailed
11/08/05

NOTICE TO FILE CORRECTED APPLICATION PAPERS***Notice of Allowance Mailed***

This application has been accorded an Allowance Date and is being prepared for issuance. The application, however, is incomplete for the reasons below.

Applicant is given 30 days from the mail date of this Notice within which to correct the informalities indicated below. A failure to reply will result in the application being ABANDONED. This period for reply is NOT extendable under 37 CFR 1.136 (a) or (b).

- Specification page 17, lines 24 has illegible data.

APPLICANT MUST SUPPLY MISSING INFORMATION WITHIN 30 DAYS OF THE MAIL DATE OF THIS NOTICE.

A copy of this notice MUST be returned with the reply. Please address response to Commissioner for Patents P.O. Box 1450
Alexandria, VA 22313-1450

A handwritten signature in black ink, appearing to read "Rori Burch", written over a horizontal line.

Rori Burch
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